

Please add the following new claims:

--10. (New) A method for producing a thermal barrier coating for a component of an internal-combustion engine, the component being exposed to hot gases, the thermal barrier coating having a columnar structure, comprising the steps of:

providing acetylacetonates of zirconium and at least one stabilizing element selected from the group consisting of alkaline earth metals and rare earths as starting substances;

vaporizing the starting substances by heating to at most 250°C so as to form coating gases;

transporting the coating gases in an admission system that has been heated to at most 250°C to the component; and

depositing the thermal barrier coating having a layer thickness between 25 μm and 1000 μm by heating a surface of the component to be coating at a deposition temperature between 300°C and 1100°C at a process pressure of between 0.5 mbar and 50 mbar so that the coating gases are broken down.

11. (New) The method according to claim 10, wherein the surface of the component to be coated is heated in the depositing step at a deposition temperature of between 800°C and 1100°C.

12. (New) The method according to claim 10, wherein the stabilizing element includes one of yttrium, lanthanum, calcium, magnesium and cerium.

13. (New) The method according to claim 10, further comprising the step of mixing the coating gases with a carrier gas.

14. (New) The method according to claim 13, wherein the carrier gas includes one of oxygen and a mixture of oxygen and argon.

15. (New) The method according to claim 13, wherein the coating gases and the carrier gas are transported to the component to be coated in the admission system.